**Algebra 1A SYLLABUS**   
Fall 2009



[www.clackamasmiddlecollege.org](http://www.clackamasmiddlecollege.org)

**Instructor Information**

**Instructor:** Ameena Amdahl-Mason

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**Office Hours**: 7:45-9:15am/2:45-3:45pm or by arrangement

**CLASS Information:**

**Course Description**: This course is the first semester in a two semester course in first year algebra topics Major topics include statistics, probability, solving equations, and linear equations and inequalities. At the high school level, Algebra 1 is the foundation math course required for more advanced study and is the first math class that requires students scored work samples at the state level.

### Credits: 0.5 Credits per term

**Class Schedule:**Monday-Friday

**Location**: CMC main campus

**Pre-requisites:** N/A

**Textbook**: *Elementary and Intermediate Algebra* (3rd ed.) by Baratto and Bergman

**Resources**:

Students have access to resources posted on the CMC website under the instructor’s page (<http://www.clackamasmiddlecollege.org/Teachers/AmeenaAmdahlMason/>) as well as on her wikispace (<http://ameena.wikispaces.com>). Included with the resources, students will also find:

* Current weekly grades posted
* Current assignments posted
* Other materials to be included as the course progresses

**Supplies**: Students are to bring a writing utensil every day along with a binder, notebook paper, and completed work from the previous day, handouts given out in class, and a calculator.

**TOPICS and STANDARDS:**

**Probability**

* H.2S.1 Identify, analyze, and use experimental and theoretical probability to estimate and calculate the probability of simple events.
* H.2S.2 Determine the sample space of a probability experiment.
* H.2S.3 Compute and interpret probabilities for independent, dependent, complementary, and compound events using various methods (e.g., diagrams, tables, area models, and counting techniques).

**Statistics**

* H.1S.1 Given a context, determine appropriate survey methods, analyze the strengths and limitations of a particular survey, observational study, experiment, or simulation, and the display of its data.
* H.1S.2 Evaluate data-based reports by considering the source of the data, the design of the study, and the way the data was analyzed and displayed.
* H.1S.3 Compare and draw conclusions about two or more data sets using graphical displays or central tendencies and range.
* H.1S.4 Use or construct a scatter plot for a given data set, determine whether there is a(n) linear, quadratic, exponential, or no trend. If linear, determine if there is a positive or negative correlation among the data; and, if appropriate, sketch a line of best fit, and use it to make predictions.
* H.1S.5 Construct, analyze, and interpret tables, scatter plots, frequency distributions, and histograms of data sets.

**Solving Equations**

* H.1A.1 Compare, order, and locate real numbers on a number line.
* H.1A.2 Evaluate, compute with, and determine equivalent numeric and algebraic
* expressions with real numbers and variables that may also include absolute value, integer exponents, square roots, pi, and/or scientific notation.
* H.1A.3 Express square roots and their decimal approximations when appropriate.
* H.1A.4 Develop, identify, and/or justify equivalent algebraic expressions, equations, and inequalities using the properties of exponents, equality and inequality, as well as the commutative, associative, inverse, identity, and distributive properties.
* H.2A.7 Write, use, and solve linear equations and inequalities using graphical and symbolic methods with one variable. Represent solutions on a coordinate graph or number line.

**Linear Equations and Inequalities**

* H.2A.1 Identify, construct, extend, and analyze linear patterns and functional relationships that are expressed contextually, numerically, algebraically, graphically, in tables, or using geometric figures.
* H.2A.2 Given a rule, a context, two points, a table of values, a graph, or a linear equation in either slope intercept or standard form, identify the slope, determine the x and/or y intercept(s), and interpret the meaning of each.
* H.2A.3 Determine the equation of a line given any of the following information: two points on the line, its slope and one point on the line, or its graph. Also, determine an equation of a new line parallel or perpendicular to a given line, through a given point.
* H.2A.4 Fluently convert among representations of linear relationships given in the form of a graph of a line, a table of values, or an equation of a line in slope-intercept and standard form.
* H.2A.5 Given a linear function, interpret and analyze the relationship between the independent and dependent variables. Solve for x given f(x) or solve for f(x) given x.
* H.2A.6 Analyze how changing the parameters transforms the graph of
* f (x) = mx + b.
* H.2A.7 Write, use, and solve linear equations and inequalities using graphical and symbolic methods with one or two variables. Represent solutions on a coordinate graph or number line.

**RESPONSIBILITIES and POLICIES:**

**Student Responsibilities:** As a student of CMC, I expect you to adhere to the policies of the school, as outlined by the Student Handbook (located on the website). You are responsible for the assignments in this class and to communicate any questions, comments or concerns you have to me. Acceptable means of communication include an appointment, e-mail, voicemail or through online discussion forums/blogs. Use of correct grammar and punctuation is required in all written communications.

Plagiarism, cheating, and collusion are prohibited at CMC. Students who fail to observe these standards are subject to disciplinary action. Please refer to the CMC Student Handbook for further definitions and consequences of these behaviors, available at: [www.clackamasmiddlecollege.org](http://www.clackamasmiddlecollege.org)

**Attendance:** Attending class daily will affect a student’s opportunity to learn in a positive manner and should result in mastery of skills, benchmarks, and standards mentioned above.

**Class participation:** Class participation will result in a greater understanding of the subject matter and will help in skill development. This includes classroom or online discussions, group work, project or other participation requirements that influence student’s opportunity to learn.

**Use of Electronic Devices:** Cell phones, iPods, and other relevant or irrelevant electronic devices are not to interfere with the learning environment unless these electronic devices are being used for a class assignment. The instructor reserves the right to take any devices that pose a problem. If a device is taken, then it will be returned in a timely fashion with a discussion about classroom expectations. If problem persists then disciplinary action may be taken.

**Other Policies:** Refer to the CMC Student Handbook

**Instructor Responsibilities:** As your instructor, I commit to communicating openly and frequently with you about this class. I will maintain a professional, safe learning environment adhering to the policies of CMC. You can expect a reply to communication, be it via e-mail, voicemail or in person, within 24-48 business hours.

**Syllabus Changes:** As your instructor, I retain the right to make changes based on the timeline of the class, feedback from learners and/or logistical issues and will inform you as soon as a change is made.

**Grading rubric:** For each topic, the mastery of standards noted above will be the basis for grading. Opportunities to master these standards will be in the form of daily work (individually or in groups), concept checks (quizzes), and unit tests and projects. The percentages for each will be:

Tests and Projects: 50%

Daily Work: 40%

Concept Checks: 10%

**Grading Scale:**

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| **Percentage** | **Grade** |
| 90-100 | A |
| 80-89 | B |
| 70-79 | C |
| 60-69 | D |
| 0-59 | F |